NOTE XXVI.

ZOOLOGICAL RESEARCHES IN LIBERIA. FOURTH LIST OF BIRDS.

ΒY

J. BÜTTIKOFER.

(Plate 6).

Mr. F. X. Stampfli, whom I left in Liberia at the end of May 1887, repatriated last summer and brought home an important number of Birds skins, most of which are collected at three stations: Owen's Grove, Mount Olive and Gallilee Mountain on the Farmington River. Only relatively few have been obtained at our old station at Schieffelinsville (March 1888) and at Paynesville on the Messurado River (April 1888).

The Farmington River is a very important confluent of the Junk River, having its general direction about parallel with the Du Queah River and joining its water with that of the main river half a mile above the mouth of the latter, and seven or eight miles lower than the Du Queah. Going up the Farmington River by canoe, both banks are flat and covered with impenetrable Mangrove-swamps, but after a few miles the banks become higher, the swamps have disappeared and forests, intermixed with grassy plains and some well-cultivated plantations of Liberian Missionaries, have entirely changed the aspect of the country. Farther up the river the banks are becoming still higher and very

rocky, the whole country is hilly, even mountainous and the river forms a whole series of rapids and roaring waterfalls, caused by the same range of mountains as those of the Du Queah. The highest elevation of this part of the country is the Gallilee Mountain, about 1200 feet above the sea, and entirely covered with primeval forest. From his residences Mount Olive and Owen's Grove (two of the mentioned Missionnary Stations) Mr. Stampfli made several excursions to this district, where the river, at some places, is not more than 4 miles distant from the Du Queah.

Mr. Stampfli's collection contains about 250 specimens, representing 92 species, one of which, *Bubo lettii* (conf. N. L. M. 1889, p. 34), is new to science. It is, as the accompanying plate will show, a very peculiar and interesting form, which has no near ally, known as yet from the old world.

As Mr. Stampfli does not return to Liberia again, there is little chance for the present to obtain any more objects from that country, though no doubt a considerable number of species will have escaped our observation.

The species, hitherto obtained by us in Liberia, and of which a full list will be given at the end of this paper, have now reached the number of 229, and in this paper eleven of them are for the first time recorded from Liberia.

1. Asturinula monogrammica (Temm.).

Astur monogrammicus, Bütt. N. L. M. 1885, p. 152.

An adult female, Mount Olive, Farmington R.

2. Astur macroscelides (Hartl.).

Nisus macroscelides, Bütt. N. L. M. 1885, p. 153; id. 1888, p. 63.

Three specimens, Mount Olive and Schieffelinsville.

3. Accipiter büttikoferi.

Nisus hartlaubii, Bütt. N. L. M. 1885, p. 153; id. 1886, p. 246; id. 1888, p. 63.

Accipiter büttikoferi, Sharpe, N. L. M. 1888, p. 199.

Two adult males, both fully agreeing in coloration with the former specimens; Mount Olive.

4. Polyboroides typicus, Smith.

An adult female, Mount Olive.

5. Pernis apivorus (Linn.).

An adult female, Mount Olive.

* 6. Bubo lettii¹).

(Plate 6).

Bütt. N. L. M. 1889, p. 34.

An adult specimen (type of the species). Collected by Mr. Lett in the Pessy Country.

* 7. Scotopelia peli.

Scotopelia peli, Bp. Consp. I, p. 44 (ex Temm. MS.); - Sharpe, Cat. Birds Br. Mus. Vol. II, p. 10.

Ulula Pelii, Schl. Mus. P.-B. Rev. Noctuae, p. 21. Scotopelia oustaleti, Rochebr. Faune de la Sénégambie, p. 69, pl. 8.

The head of a nestling in down, without any accompanying notes. The down is uniform white, with a faint isabelline tinge, especially along the neck. The powerful black bill alone will exclude any doubt about the species.

I have carefully compared Mr. Rochebrune's description of *S. oustaleti* with our type of *peli* and feel convinced

¹⁾ The species, new to the knowledge of the Liberian Avifauna, will be marked with an asterisk.

that the first is identical with the latter. The figure also agrees well with the type of *S. peli*, with the exception of the eye, which is blue on the figure, and thus in full contradiction with the description, where it is said to be pale reddish brown. A specimen from the Casamanse River, we purchased from Mr. Bouvier, shows but slight differences from the type, too slight indeed to base a new species upon.

* 8. Scotopelia ussheri.

Scolopelía ussheri, Sharpe, Ibis 1871, pp. 101, 417, pl. 12; id. Cat. Birds Br. Mus. Vol. II, p. 11.

An adult female. Iris yellow, bill yellow, blackish at tip and the cutting edge of the mandibles, base and cere yellow, feet yellow, claws yellowish horny. Wing 32 cm. Gallilee Mountain.

A comparison of this specimen with our Liberian S. bouvieri shows clearly the difference between both species, though it cannot be denied that their resemblance is very strong.

9. Caprimulgus cinnamomeus, Sharpe.

An unsexed specimen from Mount Olive, probably a young male, with indications of white ends to the two outermost pairs of tail-feathers and of white cross-bars on the first, second, third and fourth primaries. Similar to the specimens mentioned in Notes 1885, p. 156, but much darker brown and ou the upper surface somewhat tinged with gray.

10. Scotornis longicauda (Drap.).

Two specimens from the Gallilee Falls.

11. Hirundo rustica, Linn.

Hirundo rustica, Bütt. N. L. M. 1885, p. 158; id. 1888, p. 69. Hirundo lucida, Bütt. N. L. M. 1886, p. 248.

Notes from the Leyden Museum, Vol. XI.

Adult male and female from Paynesville, having nearly assumed their breeding plumage, both collected April 4th. They have the front, chin and throat deep rufous, while the rest of the lower surface is pale fulvous, under wingand tail-coverts much darker so.

A re-examination of the specimen, mentioned as H. lucida, l. c., shows that it is H. rustica in winter plumage, with fulvous forehead and throat, a dull blackish pectoral band, and the rest of lower surface, incl. the under wingand tail-coverts, pure white.

12. Eurystomus afer (Lath.).

One specimen, Gallilee Mountain.

13. Halcyon senegalensis (Linn.). One specimen, Schieffelinsville.

14. Halcyon semicoerulea (Forsk.).

Adult male, Paynesville.

15. Ceryle maxima (Pall.).

Adult female, Farmington River.

16. Ispidina picta (Bodd.). One specimen, Mount Olive.

17. Ispidina leucogastra (Fras.).

One specimen, Farmington River.

Alcedo quadribrachys, Bp. (ex Temm. MS.).
 One specimen, Mount Olive (Farmington River).

* 19. Merops superciliosus, Linn.

Merops savignyi, Hartl. Orn. W. Afr. p. 38. Merops aegyptius, Schl. Mus. P.-B. Merops, p. 2.

Two specimens, Mount Olive and Schieffelinsville. Notes from the Leyden Museum, Vol. XI. 20. Cinnyris fuliginosus (Shaw). An adult male, Schieffelinsville.

21. Cinnyris cyanolaemus (Jard.).

An adult female, Schieffelinsville.

22. Cinnyris obscurus (Jard.).

Several specimens, Farmington River and Schieffelinsville.

23. Cinnyris johannae, J. Verr.

An adult female, Schieffelinsville.

24. Cinnyris chloropygius (Jard.).

An adult female and a nestling, the latter with the bill yellow and the throat slaty gray, with paler tip to the feathers; Schieffelinsville.

25. Cinnyris adelberti, Gerv.

Adult male and female, Mount Olive and Schieffelinsville.

26. Anthreptes rectirostris (Shaw).

Anthreptes rectirostris, Shelley, Mon. Nect. p. 331, pl. 107, and the rectification in the same work, p. XLV.

An immature (green) unsexed specimen from Paynesville and a (also green) female from Schieffelinsville. Both are easily distinguished from their ally *A. hypodilus* by their superior size and quite unmistakably so by their smaller, more lanceolate first primary.

* 27. Anthreptes gabonicus.

Nectarinia gabonica, Hartl. J. f. O. 1861, pp. 13, 109.

Cinnyris venustus (nec Shaw), Bütt. N. L. M. 1885, p. 170, part. (female, nest and eggs).

Stiphrornis alboterminata, Rehw. J. f. O. 1874, p. 103; id. 1875,
p. 43; — Sharpe, J. f. O. 1882, p. 345; — Boc. Orn. d'Ang.
pp. 285, 555; — Sharpe, Cat. Birds Br. Mus. VII. p. 174; — Bütt. N. L. M. 1886, p. 250.

Anthreptes rectirostris (nec Shaw) Shelley, Mon. Nect. p. XLV (gray females); — Bütt. N. L. M. 1888, p. 211.

Anthreptes tephrolaema (nec Jard. & Fras.) Shelley, Mon. Nect. p. XLVI (gray female); — Bütt. N. L. M. 1888, p. 212.

Although Mr. Stampfli's collection did not contain any materials, able to throw more light upon the question of our Liberian gray females of Anthreptes, I feel, after a re-examination of our gray specimens, obliged to remove the two unfortunate specimens again and to place them, together with the gray specimen from the Congo, as Anthreptes gabonicus. In my above cited note (1888) I, in conferring Capt. Shelley's remarks (p. XLV), believed the gray specimens from Liberia to belong to A. rectirostris, and that from the Congo to A. tephrolaema, but at present I have strong reasons to doubt their identity with the latter species, notwithstanding their agreeing fully with the description of the adult female as given in Capt. Shelley's remarks. Those reasons are, that by a more careful comparison of the gray females from Liberia and that from the Congo, which I consider to be fully identical, with the adult male of A. rectirostris. I found in the mentioned gray birds the first (short) primary considerably longer and broader than in the latter, and the fourth quill to be the longest, while in the latter the third is the longest. In both these respects the gray birds agree very well with A. hypodilus, but they are too large to be considered the females of that species. Belonging thus neither to A. hypodilus nor to A. rectirostris, the only two hitherto known representatives of this genus in Liberia, nor, as I think, to A. tephrolaema, I place them here under the name of A. gabonicus, with which species Dr. Reichenow's Stiphrornis alboterminata is identical.

The birds (also that from the Congo) were found along river-banks — the same is said by Dr. Reichenow of his

St. alboterminata — and their pouch-like nests were hanging from twigs or dead limbs about three feet above the water.

28. Prinia mystacea, Rüpp.

One specimen, collected in the grassy plains near Paynesville.

29. Cisticola rufa (Fras.).

Three specimens, all from Paynesville.

* 30. Camaroptera concolor.

Camaroptera concolor, Hartl. Orn. W. Afr. p. 62; - Sharpe, Cat. Birds Br. Mus. VII, p. 179.

Male and female, Mount Olive and Paynesville.

31. Camaroptera brevicaudata (Cretzschm.).

One specimen, from Schieffelinsville.

32. Hylia prasina (Cass.).

Two specimens, Mount Olive and Paynesville.

33. Cossypha cyanocampter (Bp.).

An adult female, Gallilee Mountain.

34. Alethe poliocephala (Bp. ex Temm. MS.).

An adult female, Gallilee Mountain.

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35. Turdinus fulvescens (Cass.).

A male specimen from Mount Olive, similar in color to that, mentioned in N. L. M. 1888, p. 77, but considerably larger. None of both these specimens has the dull ashy color on the head, ascribed to this species by Mr. Sharpe in his Catalogue of Birds, Vol. VII, p. 545.

Notes from the Leyden Museum, Vol. XI.

36. Crateropus atripennis, Sw.

Two specimens, Mount Olive and Gallilee Mountain.

37. Xenocichla canicapilla (Hartl.).

Four specimens, Mount Olive and Schieffelinsville.

38. Criniger verreauxi, Sharpe.

One specimen from Schieffelinsville.

39. Criniger leucopleurus (Cass.).

An adult male, Mount Olive.

* 40. Criniger serinus, J. & E. Verr.

Trichophorus xanthogaster, Hartl. Orn. W. Afr. p. 83. Xenocichla serina, Sharpe, Cat. Birds Br. Mus. VI, p. 100 (1881).

One specimen, unsexed, from Schieffelinsville. Iris brown, bill yellow, feet black (Stampfli).

* 41. Andropadus curvirostris.

Only one specimen, collected at Schieffelinsville, was sent by Mr. Stampfli. It decidedly belongs to this slenderbilled species, as well as the two specimens (N^{\circ}. 90 and 179), which, in N. L. M. 1888, p. 82, I mentioned with some hesitation under the name of *A. virens.*

Except by the peculiar shape and slenderness of the bill, this species is distinguished from *A. virens* (its nearest ally) by the dark greenish or brownish gray feet, while in *A. virens* the feet are ochraceous flesh-color, and yellow in *A. latirostris*.

42. Ixonotus guttatus, Verr.

Two specimens, Gallilee Mountain.

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43. Pycnonotus barbatus (Desf.).

One specimen, Mount Olive.

44. Pitta angolensis, Vieill.

An adult female, Gallilee Mountain.

45. Motacilla vidua, Sund.

Two specimens, at the falls of the Farmington River.

* 46. Motacilla longicauda.

Motacilla longicauda, (non Gm.). Rüpp. Neue Wirb. Vög. p. 84, Taf. 29, fig. 2; — Sharpe, Cat. Birds Br. Mus. X, p. 495.

A single specimen was collected by me at the falls of the Du Queah River, where it was found together with M. vidua. Iris brown, bill black, feet gray, soles yellow. As far as I know, this is the first statement of the occurrance of this species in Western Africa.

47. Anthus pyrrhonotus, Vieill.

One specimen, Paynesville on the Messurado River.

48. Cassinia finschii, Sharpe.

An adult male from Schieffelinsville.

49. Terpsiphone nigriceps, Hartl. (ex Temm. MS.).

Adult male and female, Mount Olive and Gallilee Mountain. In high forest.

50. Trochocercus nitens, Cass.

An adult male, Owen's Grove.

51. Muscicapa lugens, Hartl.

One specimen from Schieffelinsville.

52. Platystira cyanea (P. L. S. Müll.).

An adult male from Paynesville.

53. Diaphorophyia castanea (Fras.).

Six specimens (\mathcal{A}^{\uparrow} & \mathcal{Q}) from the Farmington River, Schieffelinsville and Paynesville. Wattle above the eye in males and females purplish blue, not red, as I have erroneously mentioned in my former paper (N. L. M. 1888, p. 86).

54. Smithornis rufilateralis, Gray.

An adult male, Gallilee Mountain, in high forest.

55. Fraseria cinerascens, Hartl. (ex Temm. MS.).

An adult male, Gallilee Mountain.

56. Nicator chloris (Less.).

Three specimens, Mount Olive and Gallilee Mountain.

57. Laniarius multicolor, G. R. Gray.

An adult male, Mount Olive. This specimen, having been preserved in spirits, has lost its red color on throat and breast, which parts have become pale rosy.

* 58. Chaunonotus sabinei, J. E. Gray.

Chaunonotus sabinei, Hartl. Orn. W. Afr. p. 113.

An adult female, Mount Olive. Iris reddish brown, bill and feet blue.

59. Dryoscopus gambensis (Licht.).

An adult male, Paynesville.

* 60. Onychognathus hartlaubii.

Onychognathus hartlaubi, G. R. Gray, P. Z. S. 1858, p. 191; — Hartl. Glanzstaare Afrika's, p. 87.

Adult male and female, both from the Gallilee Mountain. Iris red, bill and feet black.

Notes from the Leyden Museum, Vol. XI.

61. Lamprocolius cupreicauda Hartl. (ex Temm. MS.).

Five specimens from Gallilee Mountain, Mount Olive, Schieffelinsville and Paynesville.

Obs. The specimen of Lamprocolius, collected by Mr. Schweitzer in Liberia and making part of the Stettin Museum under the name of L. purpureiceps, belongs very probably to the closely allied L. cupreicauda.

62. Oriolus brachyrhynchus, Sw.

Several specimens from different localities.

63. Malimbus cristatus, Vieill.

A female, collected at Paynesville.

64. Malimbus nitens (J. E. Gray).

An adult female, Gallilee Mountain.

65. Malimbus scutatus (Cass.).

An adult male, Mount Olive.

66. Quelea erythrops (Hartl.).

Many immature specimens from the Farmington River.

67. Pyromelana flammiceps (Sw.).

An adult male from the Gallilee Mountain.

68. Vidua principalis (L.).

Several specimens, Farmington-, Junk- and Messurado River.

69. Spermospiza haematina (Vieill.).

Two matched pairs from the Farmington River. Notes from the Leyden Museum, Vol. XI. 70. Pyrenestes personatus, Dubus. An adult male, Mount Olive.

71. Spermestes bicolor (Fras.). Two specimens, Mount Olive.

72. Nigrita bicolor (Hartl.). One specimen, Mount Olive.

73. Buceros elatus, Temm. Two adult males, Mount Olive.

74. Buceros atratus, Temm. An adult male, Mount Olive.

75. Megalaema subsulphurea (Fras.). Three specimens, Farmington River and Schieffelinsville.

76. Megalaema atroflava (Blumenb.). Two specimens from Schieffelinsville.

77. Megalaema scolopacea (Bp.). Three specimens, Schieffelinsville and Paynesville.

78. Trachyphonus goffini (Schl.). An adult male, Gallilee Mountain.

79. Campothera caroli (Malh.). Two adult females, Mount Olive and Gallilee Mountain.

80. Chrysococcyx klaasii (Steph.). One specimen, Farmington River.

81. Numida cristata, Pall.

Adult female, Mount Olive.

82. Agelastes meleagrides, Bp. (apud Temm.).

A series of specimens of both sexes in different stages of plumage, from the Gallilee Mountain.

All the specimens got trapped by natives, and Mr. Stampfli, who bought them and kept them alive for some weeks, confirms what I told in my former paper about the color of the naked parts. The birds must have belonged to one large travelling flock, as they all were caught within one week, towards the end of July, while neither before nor after that time specimens of this species have been seen in that part of the country. Mr. Stampfli sent me the following notes about his splendid acquisition: » My eight specimens of red-heads are all well and become quite tame. In the beginning they ate nothing but bug-abugs (larvae of Termes mordax), but now I got them so far that they eat rice also. It is really a pleasure to look at the flock while feeding, and the naked pink-red heads with the milky white necks suit wonderfully to the broad collar of dirty white feathers. Directly after death the pink on head and upper neck changes into pale rosy, and the milky white lower neck becomes purplish and afterwards almost black." Unfortunately all these birds got poisoned shortly after above note was written. The whole lot of these birds compared with those of our former collections and with the two typical specimens in our Museum are not able to enrich our knowledge of the species very much. as all of them are about fully adult. Only one specimen shows plainly, that the feathers of the collar are originally pure white and get afterwards the isabel tinge, which is thus the result of external influences.

The female is entirely similar to the male, only the spur is wanting.

83. Francolinus ahantensis, Temm. 1)

Adult male and female, Mount Olive. The adult male

¹⁾ This specific name has got altered into *ashantensis* by several Authors; it is to be observed, however, that the bird is not named after Ashantee, but after the province of Ahanta, in the Coast region of the Gold Coast.

has two spurs, like *F. bicalcaratus*, in the female the spurs are wanting and only represented by a faint knob.

84. Francolinus lathami, Hartl.

A large series of specimens from the Farmington River. In fully adult males the feathers on chest and breast are black, with a subterminal cordiform spot of pure white. Moreover the feathers on the chest have a distinct white cross-bar at about half their length, and two such are on the feathers of the breast. The female and young male, have chest and breast olivaceous brown, and the white cordiform spots as well as the white cross-bars are broadly edged with pure black. The spur in the adult male is very strongly developed, but only represented by a small knob in the female and young male.

85. Glareola megapoda, G. R. Gray.

A large series was collected near the falls of the Farmington River. The whitish inner edge at the base of the first, second and third primary is a character of the fully adult male only; in younger, even breeding males and the females in all stages the primaries are all gray entirely up to the base. The gizzard of two specimens was entirely filled up with a species of Termes, probably from a swarm of flying specimens, as it happens that these latter come down to the water in great number. I feel quite certain now, that this bird will be found in the region of the falls on all the Liberian rivers.

86. Ibis hagedash (Lath.).

An adult male, Du Queah River.

87. Ibis olivacea, Du Bus.

An adult male, Farmington River.

88. Totanus hypoleucos (Linn.).

Two specimens, Farmington River.

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89. Rallina oculea (Hartl.).

Three adult specimens, Gallilee Mountain and Mount Olive.

90. Corethrura pulchra (J. E. Gray).

Two adult specimens, Mount Olive.

91. Himantornis haematopus, Temm.

Several specimens, all in adult stage, Farmington River.

92. Podica senegalensis (Vieill.).

Heliornis senegalensis, Bütt. N. L. M. 1886, p. 267; id. 1888, p. 103.

A male specimen with spotted under surface, was obtained on the Farmington River, but, unfortunately, no date mentioned. It is similar in every respect to the male described by me in the »Notes", 1888, p. 104, with the exception that its wing-coverts are more broadly spotted with white, and that the slaty gray throat is flanked by a broad stripe of black- and white feathers, running from the angle of the mouth and uniting afterwards with the narrower band of white, which begins at the hind angle of the eye and separates the hind neck from the fore neck. The white tips to the tail-feathers are very broad. In the mentioned description I, by mistake, called the color of the back chocolate brown, while in reality it is olive brown. The measurements in both birds are about the same, the present one is even slightly larger than that from the Junk River. The claw of the thumb is well-developed. very sharp and but slightly curved.

ENUMERATION OF THE SPECIES OF BIRDS, HITHERTO RECORDED TO EXIST IN LIBERIA.

A. Species, collected by the Author, and Mess^{rs} Sala and Stampfli.

| | No | otes Le | yd Mi | us. |
|---|------|---------|-------|--|
| Falconidae. | 1885 | 1886 | 1888 | 1589 |
| 1. Circus macrourus, Gm. p. | 151 | | | |
| 2. Spizaetus coronatus (Daud.). | 152 | — | 63 | _ |
| 3. Asturinula monogrammica (Temm.) | 152 | | | 114 |
| 4. Astur macroscelides (Hartl.). | 153 | | 63 | 114 |
| 5. Accipiter büttikoferi, Sharpe (Nisus | | | 64) | |
| hartlaubi, Bütt.). | 153 | 246 | 200) | 115 |
| 6. Polyboroides typicus, Smith. | | | 65 | 115 |
| 7. Dryotriorchis spectabilis (Schl.). | | 246 | 65 | |
| 8. Milvus aegyptius (Gm.). | 155 | 247 | 65 | |
| 9. Baza cuculoides (Sw.). | 155 | 247 | 66 | |
| 10. Pernis apivorus (L.). | | 247 | | 115 |
| 11. Haliaetus angolensis (Gm.). | 154 | 246 | 66 | |
| 12. " vocifer (Daud.). | | 246 | | - |
| Strigidae. | | | | |
| 13. Bubo lettii, Bütt. | | | - | $\begin{array}{c} 34 \\ 115 \end{array}$ |
| 14. » cinerascens, Guér. | | | 66 | _ |
| 15. » leucostictus, Hartl. | | | 67 | |
| 16. Syrnium nuchale, Sharpe. | 151 | 247 | 67 | - |
| 17. Scotopelia peli, Bp. | | _ | | 115 |
| 18. » ussheri, Sharpe. | | | | 116 |
| 19. » bouvieri, Sharpe. | | 247 | | - |
| Caprimulgidae. | | | | |
| 20. Caprimulgus cinnamomeus, Sharpe. | 156 | | | 116 |
| 21. Scotornis longicauda (Drap.). | 156 | 248 | 68 | 116 |
| Notes from the Lowley Mr. | | | | |

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9

| | 1885 | 1886 | 1855 | 1889 |
|--|--|-----------------------------------|--|-----------------------|
| Hirundinidae. | | | | |
| 22. Hirundo rustica , L. 23. » nigrita , Gray. | 158 157 | 248 | 69 68 | 116 |
| Coraciadae. | | | | |
| 24. Eurystomus afer (Lath.). 25. » gularis, Vieill. | $\begin{array}{c} 158\\159\end{array}$ | 248 | 69 — | 117 — |
| Alcedinidae. | | | | |
| 26. Halcyon senegalensis (L.). 27. » cyanoleuca (Vieill.). 28. » malimbica (Shaw). 29. » badia, Verr. 30. » semicoerulea (Forsk.). | $ \begin{array}{r} 161 \\ 162 \\ 162 \\ 165 \\ 166 \end{array} $ | $249 \\ \\ 249 \\ \\ 249$ | | 117 117 |
| 31. Ceryle maxima (Pall.). 32. » rudis (L.). 33. Corythornis eyanostigma (Rüpp.). | $ \begin{array}{r} 160 \\ 161 \\ 159 \end{array} $ | $248 \\ 249 \\ 248$ | 70 70 70 | 117 |
| 34. Ispidina picta (Bodd.). 35. » leucogastra (Fras.). 36. Alcedo quadribrachys, Bp. (ex Temm. MS.). | 160 | 248 | 71 71 71 | 117 117 117 |
| Meropidae. | | | | |
| 37. Merops superciliosus, L. 38. » albicollis, Vieill. 39. » erythropterus, Gm. 40. » gularis, Shaw. | 166 167 167 167 167 167 1 | 249 249 249 249 | 71 71 71 71 | 117 |
| Nectariniidae. | | | | |
| 41. Cinnyris fuliginosus (Shaw). 42. » cyanolaemus (Jard.). 43. » sp. 44. » verticalis (Lath.). | 168 168 | 251 251 251 | 72 72 72 | 118 118 |
| 45. » obscurus (Jard.). 46. » johannae, Verr. 47. » chloropygius (Jard.). 48. » venustus (Shaw). | $ \begin{array}{c}\\ 169\\ 169 \end{array} $ | $251 \\ 249 \\ 250 \\ 250 \\ 250$ | $\begin{array}{c} 72\\\\ 72\\ 72\\ 72 \end{array}$ | 118 118 118 |

| | 1885 | 1886 | 1888 | 1889 |
|--|-------|------|----------|-----------------|
| 49. Cinnyris adelberti, Gerv. | | 251 | | 118 |
| 50. Anthreptes hypodilus (Jard.). | 170 | 251 | | _ |
| 51. » rectirostris (Shaw). | | 251 | 73 | 118 |
| 51. » rectirostris (Shaw). 52. » gabonicus (Hartl.). | | — | | 118 |
| | | | | |
| Timeliidae. | | | | |
| 53. Prinia mystacea, Rüpp. | 171 | 251 | 73 | 120 |
| 54. Cisticola lateralis (Fras.). | 171 | | | |
| 55. » rufa (Fras.). | 172 | — | - | 120 |
| 56. Sylviella stampflii, Bütt. | | 252 | | |
| 57. Camaroptera concolor, Hartl. | | | _ | 120 |
| 58. » brevicaudata (Cretz- | 1.50 | 0.50 | | 100 |
| schmar). | 173 | 252 | | 120 |
| 59. Hylia prasina (Cass.). | | | 73 | 120 |
| 60. Stiphrornis erythrothorax, Hartl. | 1.50 | | 74 | |
| 61. Cossypha poensis, Strickl. | 176 | 253 | 75 | - |
| 62. » verticalis, Hartl. | 177 | - | | 100 |
| 63. » cyanocampter (Bp.). | - | - | 75 75 | 120 |
| 64. » leucosticta, Sharpe. | 1.77 | - | 76 | $\frac{-}{120}$ |
| 65. Alethe poliocephala (Bp.). | 177 | 254 | 76 | 120 |
| 66. » diademata (Bp.). | | 204 | 10 | |
| 67. Drymocataphus johnsoni, Bütt. (D. | | | 77 | 97 |
| cleaveri, Bütt. err.). | 178 | 254 | 77 | 91 |
| 68. Turdinus gularis, Sharpe. 69. » fulvescens (Cass.). | 110 | | 77 | 120 |
| 70. Crateropus atripennis, Sw. | 178 | 254 | 76 | 120 |
| 71. Xenocichla syndactyla (Sw.). | 179 | 255 | 78 | |
| 72. » eximia (Hartl.). | 179 | 255 | 79 | _ |
| 73. » canicapilla (Hartl.). | 178 | 255 | 79 | 121 |
| 74. Criniger barbatus (Temm.). | 178 | 255 | 79 | |
| 75. » verreauxi, Sharpe. | _ | | 79 | 121 |
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| 76.>simplex (Hartl.).77.>leucopleurus (Cass.).78.>indicator, Verr.79.> | 179 | 255 | 80 | 121 |
| 78. » indicator, Verr. | | 255 | 80 | |
| 79. » serinus (Verr.). | | _ | | 121 |
| 80. » tricolor (Cass.). | | | 80 | |
| Pycnonotidae. | | | | |
| 1 y c n o n o t i a a e. | | | | |
| 81. Chlorocichla gracilirostris (Strickl.) | . 180 | 256 | | _ |
| 82. Andropadus latirostris, Strickl. | 180 | 256 | 80 | - |

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| 83. Andropadus curvirostris, Cass. | _ | | | 121 |
| 84. » virens, Cass. 85. Ixonotus guttatus, Verr. | | | 82 83 | $\frac{-}{121}$ |
| 86. Pycnonotus barbatus (Desf.). | 180 | 256 | 83 | 122 |
| Pittidae. | | | | |
| 87. Pitta angolensis, Vieill. | 175 | | 75 | 122 |
| Turdidae. | | | | |
| 88. Geocichla princei, Sharpe. 89. Turdus pelios, Bp. | 176 | _ | 77 | _ |
| Sylviidae. | | | | |
| 90. Phylloscopus trochilus (L.). | | 252 | | |
| 91. Acrocephalus turdoides (Meyer). | 172 | | - | — |
| Motacillidae. | | | | |
| 92. Motacilla vidua, Sund. | 173 | | 74 | 122 |
| 93. » longicauda, Rüpp. 94. » flava, L. | 174 | $\frac{-}{253}$ | 74 | 122 |
| 95. Anthus pyrrhonotus, Vieill. | 174 | 253 | 75 | 122 |
| 96. Macronyx croceus (Vieill.). | 174 | 253 | - | — |
| Muscicapidae. | | | | |
| 97. Cassinia finschii, Sharpe. | 101 | 256 | 86 83 | $\frac{122}{122}$ |
| 98. Terpsiphone nigriceps (Hartl.). 99. Trochocercus nitens, Cass. | 181 | 200 | 83 | 122 |
| 100. Parisoma plumbeum (Hartl.). | — | 256 | | |
| 101. Muscicapa grisola, L. 102. » lugens, Hartl. | 182 | 256 | 84 | 122 |
| 103. Platystira cyanea (P. L. S.Müll.). | 182 | 256 | | 123 |
| 104. Diaphorophyia castanea (Fras.). | _ | | 85 | 123 |
| 105. Artomyias ussheri, Sharpe. 106. Smithornis rufolateralis, Gray. | 182 | | 85 | 123 |
| 107. Bias musicus (Vieill.). | 181 | | _ | _ |
| Campephagidae. | | | | |
| 108. Campephaga quiscalina, Finsch. |] | 257 | | |
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| 109. Dicrurus atripennis, Sw. 110. » modestus, Hartl. | 183 183 | $\begin{array}{c} 257\\ 257\end{array}$ | 86 86 | _ |
| Laniidae. | | | | |
| 111. Fraseria ocreata (Strickl.). 112. » cinerascens (Hartl.). 113. Sigmodus caniceps, Bp. 114. Telephonus senegalus (L.). 115. Nicator chloris (Less.). | 184 | 257 257 258 | | 123 — — 123 |
| 116. Laniarius multicolor, G. R. Gray. 117. » zosterops, Bütt. (L. sul- | | | 86 | 123 |
| phureipectus, Bütt. err.). 118. Chaunonotus sabinei, J. E. Gray. 119. Dryoscopus gambensis (Licht.). 120. » leucorhynchus(Hartl.). | | $\frac{-}{258}$ 258 | 87 | 98 123 123 |
| Oriolidae. | | | | |
| 121. Oriolus brachyrhynchus, Sw. | 186 | 258 | 88 | 124 |
| Corvidae. | | | | |
| 122. Corvus scapulatus, Daud. | 186 | _ | 87 | |
| Sturnidae. | | | | |
| 123. Onychognathus hartlaubi, G. R. Gray. | - | _ | _ | 123 |
| 124. Lamprocolius cupreicauda, Hartl. (ex Temm. MS.).125. Pholidauges leucogaster (Gm.). | 187 | 258 | | 124 |
| Ploceidae. | | | | |
| 126. Malimbus malimbicus (Daud.), [M. rubricollis (Sw.)]. 127. Malimbus cristatus, Vieill. 128. » nitens (J. E. Gray). 129. » scutatus (Cass.). | $195 \\ 195 \\ 196 \\ 196 \\ 196$ | 259 259 | 90 90 90 | $ 124 \\ 124 \\ 124 124 $ |

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| 130. Ploceus nigerrimus, Vieill. | | - | 88 | _ |
| 131. » tricolor (Hartl.). | 193 | | 88 | |
| 132. » castaneofuscus, Less. | 192 | 258 | 88 | |
| 133. » cucullatus (P. L. S. Müll.) | | | | |
| [P. textor (Gm.)]. | 190 | 259 | 88 | |
| 134. » aurantius (Vieill.). | 188 | | - | |
| 135. » brachypterus, Sw. | 189 | 259 | _ | |
| 136. Quelea erythrops (Hartl.). | 194 | — | 89 | 124 |
| 137. Pyromelana flammiceps (Sw.). | 194 | - | 89 | 124 |
| 138. Coliopasser macrurus (Gm.). | 197 | 259 | 91 | |
| 139. Vidua principalis (L.). | 197 | 259 | 91 | 124 |
| 140. Ortygospiza polyzona (Temm.). | | 259 | | |
| 141. Estrelda melpoda (Vieill.). | | 260 | | . — |
| 142. Pytilia schlegelii, Sharpe. | 201 | 200 | 91 | 101 |
| 143. Spermospiza haematina (Vieill.). | 198 | $\frac{260}{260}$ | 91 01 | 124 |
| 144. Pyrenestes personatus, Dubus | $\frac{199}{201}$ | $\frac{260}{261}$ | $\begin{array}{c} 91 \\ 91 \end{array}$ | 125 |
| 145. Spermestes fringilloides (Lafr.). | | $\frac{201}{261}$ | | _ |
| 146. » cucullatus, Swains. 147. » bicolor (Fras.). | 202 | $\frac{201}{261}$ | $\frac{-}{92}$ | 125 |
| 147. » bicolor (Fras.). 148. Nigrita emiliae, Sharpe [N. cani- | 404 | 201 | 94 | 120 |
| capilla (Strickl.)]. | | 261 | 90 | |
| 149. » bicolor (Hartl.). | 194 | 261 | 30 | 125 |
| 145. » bicoloi (ilai bi.). | 104 | 201 | | 120 |
| Musophagidae. | | | | |
| 150. Corythaix macrorhynchus, Fras. 151. Turacus cristatus (Vieill.) [T. gi- | 202 | 262 | 92 | — |
| ganteus (Vieill.)]. | 203 | 262 | 92 | - |
| Bucerotidae. | | | | |
| 152. Buceros elatus, Temm. | 204 | 262 | 92 | 125 |
| 153. » atratus, Temm. | 205 | | 93 | 125 |
| 154. » cylindricus, Temm. | 206 | | 93 | |
| 155. » fistulator, Cass. | 206 | 262 | 93 | |
| 156. Berenicornis leucolopha. Sharpe. | 207 | 262 | 93 | |
| 157. Tockus semifasciatus, Temm. | 208 | 262 | 93 | — |
| 158. » hartlaubi (Gould). | 209 | | - | |
| 159. » camurus (Cass.). | 210 | 262 | 93 | _ |
| Trogonidae. | | | | |
| 160. Trogon narina (Levaill.). | | 262 | | |

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| Psittacidae. | | | [| |
| 161. Psittacus timneh, Fras. 162. Psittacula swinderniana, Kuhl. | $\begin{array}{c} 212\\ 214 \end{array}$ | 263 | $94\\94$ | _ |
| Bucconidae. | | | | |
| 163. Pogonorhynchus hirsutus (Sw.). 164. Megalaema duchaillui (Cass.). 165. » subsulphurea (Fras.). 166. » atroflava (Blumenb.). 167. » scolopacea (Bp.). 168. Trachyphonus goffini (Schl.). 169. Gymnobucco calvus (Lafr.). | $ \begin{array}{r} 215 \\ 216 \\ 216 \\ \\ 217 \\ 218 \\ 217 \\ 218 \\ 217 \\ \end{array} $ | $263 \\ 263 \\ 263 \\ \\ 263 \\ \\ 263 \\ \\ 263 \\ \\ 263 \\ \\ \\ 263 \\ \\ \\ \\ \\ \\ \\ \\ $ | 94 - 94 94 95 95 95 95 95 | 125 125 125 125 125 |
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| 170. Indicator variegatus, Less. | 219 | | 96 | |
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| 171. Mesopicus pyrrhogaster (Malh.). 172. Dendropicus lugubris, Hartl. 173. Campothera maculosa (Val.). 174. > caroli (Malh.). 175. > nivosa (Sw.). | 219 220 220 221 221 | $263 \\ 263 \\ 264 \\ \\ 264$ | 96 96 | 125 |
| Cuculidae. | | | | |
| 176. Centropus francisci, Bp. 177. » senegalensis (L.). 178. Ceuthmochares aeneus (Vieill.). 179. Coccystes cafer (Licht.). 180. Chrysococcyx cupreus (Bodd.). 181. » klaasii (Steph.). | 222 223 224 225 225 | $264 \\ 264 \\ 264 \\ \\ 264 \\ \\ \\ \\ \\ \\ \\ \\ $ | 96 96 — 96 96 | 125 |
| Columbidae. | | | | |
| 182. Treron calva (Temm.). 183. Columba unicincta, Cass. 184. » iriditorques, Cass. 185. Turtur semitorquatus (Rüpp.). | 226 226 227 227 | $264 \\ -264 \\ -$ | 97 97 97 — | |

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| 187. » afra (L.). | 229 | 265 | 98 | |
| 188. » tympanistria (Temm.). | 229 | 265 | 98 | |
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| Numididae. | | | | |
| 189. Numida cristata, Pall. | 230 | | 98 | 125 |
| 190. Agelastes meleagrides, Temm. | 230 | | 98 | 126 |
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| 191. Francolinus ahantensis, Temm. | 231 | | | 126 |
| 192. » lathami, Hartl. | 231 | 265 | 99 | 127 |
| | | 200 | 00 | 1 |
| Charadriidae. | | | | |
| 193. Oedicnemus vermiculatus, Cab. | 232 | | | |
| 194. Glareola megapoda, Gray. | 233) | | 99 | 127 |
| 134. Glareola megapoua, Glay. | 256 | | 00 | 141 |
| 195. Vanellus inornatus, Sw. | 235 | 265 | 100 | |
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| 197. Charadrius hiaticula, L. | 237 | | | |
| 198. » cantiana, Lath. | 237 | | | |
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| 199. Ardea alba, Linn. | 238 | 265 | 100 | |
| 200. » ardesiaca, Wagl. | 238 | | | |
| 201. » gularis, Bosc. | 238 | 266 | 100 | |
| 202. » atricapilla, Afz. | 239 | 266 | 101 | |
| 203. Botaurus sturmii (Wagl.). | 240 | | | |
| 204. » leucolophus (Jard.). | 240 | 266 | 101 | |
| 205. Nycticorax leuconotus (Wagl.). | 241 | 266 | | |
| Ciconiidae. | | | | |
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| 206. Ciconia episcopus, Bodd. | 242 | - | 101 | |
| Ibidae. | | | | |
| 207. Ibis olivacea, Du Bus. | 243 | | 101 | 127 |
| 207. This onvacea, Du Bus. 208. » hagedash (Lath.). | 243 | | 101 | 127 |
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| 209. Numenius phaeopus (L.). 210. Totanus glottis (L.) [T. canescens | 243 | _ | 102 | |
| (Gm.)]. | 244 | 266 | 102 | |
| 211. » hypoleucos (L.). | 244 | 266 | 102 | 127 |
| 212. Tringa subarquata (Gould). | 244 | | 102 | — |
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| 213. Himantornis haematopus, Temm. | 245 | 266 | 103 | 128 |
| 214. Ortygometra nigra (Gm.). | 245 | | - | |
| 215. Rallina oculea (Hartl.). | - | - | 102 | 128 |
| 216. Corethrura pulchra (J. E. Gray). | | | 102 | 128 |
| Heliornithidae. | | | | |
| 217. Podica senegalensis, Hartl. | _ | 267 | 103 | 128 |
| A n a t i d a e. | | | | |
| 218. Phoenicopterus sp. | 246 | _ | | - |
| 219. Plectropterus gambensis (L.). | 247 | _ | - | |
| 220. Sarcidiornis melanotos (Penn.). 221. Dendrocygna viduata (L.). | $\begin{array}{c c} 248 \\ 248 \end{array}$ | - | _ | |
| 221. Dendrocygna viduata (h.). 222. Querquedula hartlaubi, Cass. | | 267 | 105 | |
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| 223. Stercorarius cephus (Brünn.). | | 267 | 106 | |
| 224. Sterna cantiaca, Gm. | 249 | 267 | 106 | - |
| 225. » fluviatilis, Naum. | 250 | - | | - |
| 226. Hydrochelidon nigra (Briss.). 227. Rhynchops flavirostris, Vieill. | $\begin{array}{c c} 250 \\ 251 \end{array}$ | 267 | 106 | - |
| 221. Imynenops navirostris, viem. | 201 | | | |
| Pelecanidae. | | | | |
| 228. Plotus levaillantii, Licht. | 251 | 268 | 106 | |
| 229. Graculus africanus (Gm.). | 252 | | 106 | - 1 |

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B. Species, not met with by ourselves, but mentioned as Liberian by Authors.

| Machaeramphus anderssoni (Gurney) . Coll. Schweitzer. |
|--|
| Astur macrourus, Schl Coll. Schweitzer. |
| Scops senegalensis, Sw teste Hartlaub. |
| Caprimulgus fossii, J. Verr Coll. Schweitzer. |
| Eremomela badiceps (Fras.) teste Hartlaub. |
| Turdinus rufescens, Rchw. (n. sp.) Coll. Schweitzer. |
| Laniarius melamprosopus, Rchw. (n. sp.) Coll. Schweitzer. |
| » cruentus (Less.) Coll. Schweitzer. |
| Graucalus azureus, Cass Coll. Mc. Dowell, texte |
| Lamprocolius purpureiceps (Verr.) [an [Cassin ¹). |
| cupreicauda, Hartl.?] Coll. Schweitzer. |
| Ploceus nigricollis (Vieill.) [P. grayi Verr.] teste Hartlaub. |
| ? Estrelda rhodopyga, Sund. [E. rubri- |
| ventris, Vieill.] teste Hartlaub. |
| Pytilia melba (L.) teste Finsch & Hart- |
| laub. |
| ? Pyrenestes coccineus, Cass teste Cassin. |
| Corythaix persa (L.) teste Herz. v. Württ. |
| vide Hartlaub. |
| Francolinus bicalcaratus (L.) teste Herz. v. Württ. |
| vide Hartlaub. |
| Nycticorax europaeus, Steph Coll. Schweitzer. |
| |

1) Dr. Mc. Dowell collected numerous Birds on the St. Paul's River about 1840, which have been treated of by Cassin (Proc. Acad. Nat. Sc. Philad. 1851).

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